

THE MEDICAL NEWS AND LIBRARY.

VOL. XXXI.

JUNE, 1873.

No. 366.

CONTENTS.

LECTURES.

- The Relative Frequency of Disease between the Right and Left Sides of the Heart; Degeneration of the Heart; its Causes and Means of Avoidance 81
Treatment of Disease in Children 87

CLINICS.

CLINICAL LECTURES.

- Abstract of a Clinical Lecture on the Treatment of Psoas and other large Abscesses 88

HOSPITAL NOTES AND CLEANINGS.

- Acute Pulmonary Tuberculosis with almost Complete Absence of Pyrexia 90

MEDICAL NEWS.

- Domestic Intelligence.—American Medical Association 91
Notes of Practice at Bellevue Hospital, New York, Chronic Synovitis of the Wrist-Joint 92
Liquor Picis Alkalinus 92
The Wharton Trial 96

ANDERSON ON SKIN DISEASES,

8 PAGES.

LECTURES.

- The Relative Frequency of Disease between the Right and Left Sides of the Heart; Degeneration of the Heart; its Causes and Means of Avoidance.* By CORNELIUS BLACK, M.D. (Continued from p. 71.)

The Prognosis in the forms of Heart Disease considered.

The conditions of every case of heart disease afford ground for the formation of an opinion as to its ultimate issue. If these conditions are rightly interpreted, the result should seldom be at variance with the prognosis expressed. To the patient and friends it is of the utmost importance that there should be no misinterpretation of symptoms—no promising,

from ignorance or carelessness, a continuance of life where it is impossible for life to be long maintained—no shadowing forth of sudden death where no immediate danger to life exists. In the one instance, fancied security procrastinates the adjustment of family interests, worldly pursuits, and the calm consideration of the prospect of death. In the other instance, the unfounded impression of early dissolution begets unnecessary alarm, unfits both mind and body for the warfare of life, and continually invests the case with sorrowful forebodings, anxious solicitude, and wearisome suspense.

In the interests of his patients, and for the reputation of himself, the physician

Published monthly by HENRY C. LEA, Nos. 706 & 708 Sansom Street, Philadelphia, for One Dollar a year; also, furnished GRATUITOUSLY to all subscribers of the "American Journal of the Medical Sciences," who remit the Annual Subscription, Five Dollars, in advance, in which case both periodicals are sent by mail free of postage.

■ In no case is this periodical sent unless the subscription is paid in advance.

VOL. XXXI.—6

should seek to interpret aright the indications which every case of heart disease affords, and to deduce therefrom a prognosis which is justified by a knowledge of the physiology and pathology of the heart, by judgment, and by the light of experience and of facts.

The dogma that *a diseased heart predicates early death* no longer retains its hold on the mind which has been accustomed to watch its diseases through all the phases of incidence, rise, climax, decline, and consequence. The heart may be diseased, and no danger whatever to life may exist. It may be affected, and danger may attach only to its somewhat distant future. It may suffer, and death is constantly at hand.

These facts are legitimate deductions of knowledge acquired by observation, sanctioned by reason, and confirmed by experience. They teach that the degree of danger in heart disease is determined by the particular part of the heart which is affected, and by the nature and extent of the disease which exists. A mere roughness from exudation of a part of the endocardium of the left ventricle which does not interfere with the free action of the mitral or aortic valves, but which is sufficient to alter the character of the first sound of the heart, is not of itself productive of any danger whatever to life. I have known this condition of the heart exist for a period of twenty years without it advancing one step, and without its producing the least trouble or inconvenience to the patient.

In such a case the prognosis is always favourable as to the continuance of life. The patient cannot die suddenly from this condition of the heart alone.

Let, however, middle age be passed, and this condition of the endocardium may gradually and imperceptibly extend to the mitral or aortic valves, or to both; or these valves may, from the insidious stealth of natural degeneration, shrink, just as the features of the face become shrivelled by age, so as to render them no longer able to effectually close their respective apertures.

When valvular incompetency has thus been established, the case passes in prognosis from

the category of safety to that of more or less danger.

The blood cannot be diverted in any degree, from its natural course, in its passage through either the left or the right side of the heart, without establishing a danger which is either present or more or less remote. Present danger is more particularly caused by valvular incompetency on the left side of the heart; slower danger by valvular incompetency on the right side of the heart. Sudden death is the legitimate termination of the former; a lingering death the general issue of the latter.

When sudden death occurs in heart disease, it is due to one of three causes—either to the sudden breaking of the column of blood in the aorta, or to the diversion of the blood from its natural course as it is being projected from the left ventricle, or to the failure of the heart to contract.

The column of blood may be broken in the aorta by great incompetency of the aortic valves, which fail to afford a firm basis of support to the charge of blood which has just been thrown into that vessel by the left ventricle. From the incompetency of the aortic valves, a fissure or hole is left when they have been brought into the closest approximation of which they admit, and through this hole the blood, thrown into the aorta, may run back into the ventricle so rapidly and in such quantity that the column in the aorta is suddenly snapped, the further flow of blood to the brain is at once arrested, the vessels of the brain instantly collapse, the patient faints, falls, and dies!

The blood may, as it leaves the left ventricle, be diverted from its natural course by an incompetent mitral valve. When the incompetence is great, the greater portion of the charge of blood may, on leaving the left ventricle, regurgitate into the left auricle; whilst the smaller portion does not reach the aorta in sufficient quantity and force to pass to the brain. The vessels of the brain therefore collapse, as in aortic incompetency, and the patient dies.

Whenever the mitral valve is incompetent, a part of the ventricular force is ex-

pended in driving the blood back again into the left auricle, and a corresponding reduction of force is felt by the blood thrown into the aorta. It is easy to see that the expenditure of force in the former act may be so great, and that the force exerted upon the blood in the aorta may be so weak, that the blood cannot reach the brain.

Between, however, the two incompetencies—that of the aortic and that of the mitral valve—it may be remarked, that danger of sudden death is greater in the former than in the latter lesion. Incompetency of the aortic valves often produces sudden death; incompetency of the mitral valve less frequently. The reason why sudden death is seldom the result of mitral valvular incompetency is due to the fact, that the aortic valves are generally competent in such cases. The same incompetency of the two valves seldom coexists; or, if both valves are incompetent, the mitral incompetency has acquired a marked precedence in extent over the aortic. Hence, in mitral incompetency, whatever quantity of blood is thrown into the aorta finds, as a rule, a firm support in the aortic valves to rest upon, so that the column of blood, however small, is maintained in that vessel, and reaches the brain in sufficient quantity to prevent a fatal collapse of its vessels.

It, therefore follows that the prognosis, as regards sudden death, is less favourable in aortic than in mitral incompetency.

Incompetency of the latter valve is rather a conservator of the integrity of the aortic valves, because less force is exerted upon the latter valves by reason of the expenditure of ventricular force through the mitral valve. This loss of force upon the aortic valves is to some extent made up by hypertrophy which the left ventricle undergoes from the too frequent action excited by regurgitation; but it is a question whether, even with acquired increase of power, the force now exerted upon the aortic valve equals the original force upon the same valves when the mitral valve itself is quite healthy. The additional power acquired by the heart from hypertrophy is spent upon the two valves in the same relative ratio as the original power.

If the diseased mitral valve received one-half or two-thirds of the original force of the left ventricle, it will also receive one-half or two-thirds of the additional force acquired by hypertrophy. Thus, then, the force exerted by the left ventricle upon the blood in the aorta, less than natural in the very early stage of mitral incompetency, does not exceed the normal force when the ventricle has undergone hypertrophy. The evils, therefore, of mitral incompetency are not propagated in the direction of the aorta—not with the current of blood leaving the heart, but *against* that which is reaching the heart. The aortic valves are thus spared; but the evil effects reach the lungs, and are thence propagated to the right side of the heart. Congestion of the lungs is the first evil effect produced in the retrograde course of the circulation by mitral incompetency; then back-flooding upon the right ventricle, which becomes hypertrophied. From the former arise haemoptysis, pulmonary apoplexy, inflammation of the lungs, but much more frequently *simple hypertrophy of the pulmonary tissues of the lower lobes*; from the latter, congestion of the brain and its consequences, venous congestion and enlargement of the different organs of the abdomen, and general dropsy. Thus, although danger is more imminent in aortic valvular incompetency, yet it is not more certain than in mitral incompetency. The one may kill at a stroke; the other kills more slowly but not less certainly.

In delivering his prognosis as to the probability of sudden death, the physician must be guided by the condition of the mitral and aortic apertures. If they are not effectually closed by their respective valves, the blood is either diverted from the aorta, or it is allowed to fall back into the left ventricle. In either case the natural character of the pulse is altered. Where mitral incompetency exists, the pulse is irregular, unequal, and probably intermittent. Where aortic incompetency is present, it is, as a rule, regular; but no sooner does it rise beneath the finger than it suddenly recedes from it and is gone again. When, however, the aortic incompetency is great, the pulse, in addition to

its peculiar character of receding suddenly from beneath the finger, is also intermittent. Now, whenever in valvular disease these characteristics of the pulse are strongly pronounced, death may occur suddenly. Still, experience shows that sudden death is not the usual termination of mitral incompetency, the reason of which I have already assigned. Death, however, may and does occasionally occur suddenly in this condition of the mitral valve.

Hence the prognosis with respect to sudden death should, in mitral incompetency, be, possible—in aortic incompetency, probable.

Now, as certainly as the characters of the pulse thus indicated in valvular disease bespeak the *possibility* or the *probability* of the occurrence of sudden death, so certainly does a regular and equal—equal as to its rise and fall—pulse declare the impossibility of such an occurrence when the muscular walls of the heart are healthy.

Hence, whatever amount of mischief exists on the left side of the heart, death cannot occur suddenly so long as the pulse preserves its regularity and equality.

But aortic and mitral incompetency sooner or latter end in death, because an incompetent valve on the left side of the heart *never*, as a rule, regains its normal condition—*never* again confines the blood to its natural course; but it, on the contrary, gives rise to secondary consequences, which it increases and perpetuates until death. To the right side of the heart these remarks do not apply with equal force. Here the tricuspid valve may become temporarily incompetent from the back-flooding upon it caused by inflammation of the lungs. As soon as the inflammation has been subdued and the vessels of the lungs have been relieved, the backward pressure of the blood is taken off the right cavities of the heart, and the tricuspid valve returns to its normal competence.

Very different are the effects of constriction of the mitral and aortic apertures. The very cause which increases the incompetency of their valves tends to remove the constriction. In the latter condition the blood is opposed in its

forward flow from auricle to ventricle—from ventricle to aorta. At each point it has to struggle through an aperture narrowed by disease. In doing so the tendency of the effort is to widen the aperture, and to restore it to its natural diameter. No sooner has the constriction occurred to the extent of preventing the natural quantity of blood from passing these valves than a retrograde influence is propagated from the mitral valve to the lungs—from the aortic valve to the left ventricle. The former results in dilatation and subsequent hypertrophy of the left auricle, and in an excess of blood in the vessels of the lungs; the latter in a continual teasing of the left ventricle to contraction. The blood can neither enter the left ventricle nor yet leave it in sufficient quantity. The ventricle contracts upon an insufficient quantity of blood, but it does not empty itself; a small portion of blood remains in it when it has completed each individual effort. The presence of this remaining portion of blood immediately excites the ventricle to a repetition of its contraction, and, this occurring more frequently than natural, the nutrition of the heart's walls is increased, and hypertrophy is the result. Hypertrophy is not, therefore, induced for the purpose of overcoming the valvular obstruction, but it follows as a necessary consequence of the increased action of the ventricle. In this respect it obeys the general law—that increased action leads to increased nutrition, to enlargement, to hypertrophy. Of the truth of this, the increased development of the leg of the opera dancer and of the arm of the blacksmith are examples.

Now, can a heart thus affected by constriction of its mitral or aortic valves, or of both, and by hypertrophy, ever recover its normal condition? This much may at once be said in answer, that, if it cannot entirely recover its natural condition, it may at least undergo so great an improvement in every respect that it may ultimately discharge its duty without trouble, without unusual effort, and with the same ease and regularity as in its healthy state. Constrictive valvular disease is one of the diseases of the early period of life, and the result of inflammation. Changes thus

produced in early life, time will enable the system to rectify. At this period of life nutrition is active; waste is active; the tissues are more instable than in perfect manhood; molecular change is the more readily brought about. If a repetition of inflammation can be avoided, the natural efforts of the system will, in the course of a few years, effect the absorption of the exudation, relieve the constriction of the valvular apertures, allow the blood to enter the left ventricle and to leave it in sufficient quantity, and in this way may restore the natural condition of the heart. This condition re-established, the hypertrophy gradually reduces until the heart at length returns to its natural size. The cause removed, the effect disappears. I am aware that this doctrine is opposed to the general opinion—that the heart once hypertrophied is never reduced to its original size. To this opinion I oppose the result of my own experience, which prompts me unhesitatingly to declare that hypertrophy thus induced in early life will, and does, pass away on the removal of its cause. That which the system is capable of effecting in early life cannot be accomplished after middle age—the practicable of youth becomes the impracticable of more advanced years. It follows this statement that the prognosis to be given in a case of the nature just described is—*That perfect recovery may occur in youth; that it cannot be effected after middle age.* Whilst the body is yet young we ought to have unbounded faith in the efforts of nature. Her power is marvellous; and the results which she achieves often astonish our belief and put to shame our ignorance. She abhors “non-naturals,” as the ancients have it, and she ever strives to substitute for them the “naturals.” It is not natural to have constricted mitral and aortic orifices and an enlarged heart. She will, therefore, endeavour to remove them. If age and the conditions of life favour her efforts, she may accomplish her task. If they oppose, she will fail, and the grave will, ere long, receive the subject of her unavailing exertions.

The heart may suddenly cease to contract from mechanical arrest, or from innate failure of action in its muscular fibres.

An accumulation of fluid in the pericardium—whether of serum, or of pus, or of blood—may produce such an amount of pressure upon the surface of the heart that it can no longer beat beneath the load which oppresses it. Here it will have given previous indications of its difficulty; and, if that difficulty be properly appreciated, the prognosis delivered will always convey the expression of *danger*.

The heart may again suddenly—in an instant—fail to deliver its charge of blood, so that death occurs unexpectedly and at once, or death may be preceded by a short period of urgent symptoms which have abruptly and instantly broken in upon the patient's unsuspected and accustomed health. When death thus occurs at once, the left ventricle is instantly paralyzed in its action, either by degeneration of its muscular fibre to such an extent that it can no longer respond to the incident impression caused by the presence of blood in its cavity, or by an increased amount of labour suddenly cast upon it, which it has not the power to accomplish in consequence of the extent of degeneration which its fibres have undergone. When death occurs thus suddenly degeneration of the muscular fibres will generally be found to have taken place pretty equally throughout the heart's walls. When, however, death has been preceded by a short period of urgent symptoms, this general degeneration of the heart's fibres may not exist. Certain portions of the left ventricle will generally be found to have undergone this change to such a degree that the heart ruptures at one or other of these points in its effort to discharge its blood into the aorta. The heart having by degeneration lost its power of contracting at particular points, and retaining its power of contracting at other continuous and contiguous points, traction, which cannot be correlated, is made upon the former points, the muscular fibres throughout the thickness of the heart's walls break in consequence, blood pours through the rent into the pericardium, and death quickly follows.

In every case of the degeneration of the heart's muscular fibres, whether that degeneration takes the particular form which I have described as the result of hyper-

carbonized blood from defective ventilation, or that of fatty transformation, the prognosis is *unfavourable*.

If, however, the early stage of degeneration from defective ventilation be recognized, its condition may be remedied, and its evil consequence avoided, by the resolute removal of the cause; but if the fibres of the heart have undergone, to any considerable extent, that change which I have shown to be characteristic of this particular form of degeneration, there is no hope of a long continuance of life for the patient.

Of fatty degeneration of the heart an equally unfavourable prognosis may be expressed. It is essentially a disease of the degenerative period of life. It occurs more particularly when the reparative powers of the system are reduced—when the vital force is less able than formerly to withstand the power of opposing chemical influences—when every organ, every structure, has in consequence lost the stamp and vigour of youth, and is passing by slow and almost imperceptible change to decay. In such a condition, under such circumstances, the transformed muscular fibre cannot undergo retransformation—cannot recover its pristine state. Oil cannot be converted into fibrine, although fibrine has been converted into oil. The latter cannot recover the elements which the former has lost; it cannot ascend from its present to a higher organization. The complex structures degenerate; but the simple structures no longer ascend the formative scale. The tendency of the structures of the heart is in a downward direction, which art may delay, but which it can never entirely arrest. The molecules of oil which now replace the fibrine in the sarcolemma of the muscular fibre will there remain; they will be added to, slowly it may be, from the influence of art, but nevertheless certainly, by the metamorphosis of other portions of the sanguous elements; and they will by each addition weaken more and more the structures of the heart, until the labour imposed shall exceed the power to accomplish, when death more or less rapid will ensue.

It is perhaps possible, when in early

life fatty degeneration supervene on other disease, that the transformation may be arrested, and that the heart, if not too much damaged by this change, may be enabled to fulfil its duties for an indefinite time. Whether or not this arrest of transformation is ever followed by the removal from the muscular fibre of the matter transformed is a problem which has not yet been solved. That which is impracticable in after life is often practicable in early age. For this reason I readily admit the power of youth, rising triumphantly from other and temporary diseases, to arrest the transformation in question; and I do not deny that it may be competent to do still more—to remove the products of such transformation, and to replace it by healthy muscular fibre.

The prognosis, then, which necessarily flows from these views, expresses danger of sudden death in every case in which the heart's fibres have undergone fatty degeneration—impossible recovery after middle age—possible recovery in the early periods of life,

The heart knows not only a sudden death, but it knows a death which is always slow. This arises from disease of its right chambers. Seldom indeed are these chambers the seat of inflammation, often of degeneration. Their diseases may be either primary or secondary: primary from tissue-degeneration of their walls; secondary from the mechanical stretching of their walls caused by backward pressure of blood from the lungs through the pulmonary artery. Anything which obstructs the flow of blood through the pulmonary circuit, which either opposes the onward flow from the right ventricle to the lungs, or the forward flow thence to the left auricle, may produce this backward pressure. Thus, inflammation of the lungs, emphysema, tumours, and collections of fluid in the pleura, act in the former way, incompetency of the mitral valve in the latter.

From tissue degeneration the valves of the right side of the heart may be rendered incompetent, the heart's walls weakened, and its cavities dilated. From backward pressure of blood from the lungs and from mechanical distension of the heart's cavities, the same results occur.

The exciting causes are different, but the effects are the same. In nearly every instance the cause is permanent; the effect is therefore to the same extent permanent. A shrunk tricuspid or pulmonic valve cannot be made sound; a dilated right ventricle from degenerated walls cannot be restored to its natural size. Emphysema is not curable; nor are intra-thoracic tumours removable; neither can an incompetent mitral or aortic valve be rendered competent. The only cause, then, influencing the right heart which is removable, is inflammation, congestion, or some such affection of the lungs. The only effect, therefore, upon the right heart which is curable, is that which acknowledges this cause. If, then, a patient suffering from acute bronchitis, or from double pneumonia, or from sudden effusion into the pleura, is at once found to have an incompetent tricuspid which was known not to exist before, the lesion is due to the back-flooding caused by the obstructed flow of blood through the lungs, and the incompetency will, in all probability, disappear on the subsidence of the inflammation or the removal of the effusion.

When tricuspid incompetency depends upon degeneration of the valve, it is from first to last progressive; it acknowledges no improvement; it establishes a permanent regurgitation from ventricle to auricle: it thus throws back a refluent wave of blood upon the venous system of the body, which leads to local congestions, general dropsy, and death. When, too, it supervenes upon any chronic affection of the lungs, as chronic bronchitis, asthma, emphysema, without the aid of a fresh exciting cause, its advent is marked by slight oedema of the ankles, which may always be regarded as the sure herald of approaching death. In the same light is tricuspid incompetency to be viewed when it is consecutive to mitral incompetency. Not unfrequently, however, tricuspid incompetency, arising out of mitral incompetency by reason of the obstructed flow of blood which the latter causes in the lungs, is greatly aggravated by an accession of acute bronchitis induced by cold. Dropsy, which until now had existed as a mere puffiness of the ankles only, extends

to the whole subcutaneous cellular membrane; the face is bluish-red and bloated; the eyes are congested, staring, and watery; the external jugulars stand forth, full, tense, and throbbing; veins large and tortuous meander over the neck and front of the chest, and the breathing, half-laboured, half-panting, wheezes in agony of distress. Many such cases occur in the practice of every physician of experience, who will be able to confirm this fact, that proper treatment removes the exaggerated secondary consequences induced by the inflammation, and restores the patient to the same, or even to a better condition than that in which the inflammation found him. Improvement, however, continues but for a short time; a fresh accession of inflammation occurs with its attendant consequences; treatment again removes it; again does it occur, and again it is subdued by treatment; and thus, with alternations of fresh accessions and improvements, is the patient worried, until at length one such attack overwhelms him in irretrievable ruin.

The history, the nature, the reason, afford but a gloomy prospect in affections of the right side of the heart. With few, very few, exceptions, they arise and progress steadily unto death. They do not kill suddenly, because the right heart does not supply the blood necessary for the due maintenance and innervation of the nervous system, but they kill none the less certainly by the secondary effects which they produce in every organ, every tissue of the body.—*The Lancet*, Nov. 23d, 1872.

Treatment of Disease in Children. By EUSTACE SMITH, M.D. Lond., Physician to His Majesty the King of the Belgians.

There is one class of remedies which is of singular value in the treatment of the diseases of young children—viz., the alkalies. In all children (in infants especially) there is constant tendency to an acid fermentation of their food. This arises partly from the nature of their diet, into which milk and farinaceous matters enter so largely; partly from the peculiar activity of their mucous glands, which pour out an alkaline secretion in such large quantities. An excess of fari-

naceous food, therefore, soon begins to ferment, and an acid is generated, which stimulates the mucous membrane to further secretion. In all chronic diseases, and in many of the acute disorders, this sour condition of the stomach and bowels is present. Alkalies are therefore useful —firstly, in neutralizing the acid products of this fermentation; and secondly, in checking the too abundant secretion from the mucous glands. A few grains of soda or potash, given an hour or two after taking food, will quickly remedy this derangement and remove the distressing symptoms which arise from it. In the chronic diseases, indeed, attention to this point is of especial importance: for by placing the stomach and bowels in a healthy state, and insuring a proper digestion of food, we put the child in a fair way of recovery, and prepare the way for the administration of tonic and strengthening medicines, by which his restoration to health is to be brought about.

In prescribing for infants, an aromatic should always be included in the mixture. The aromatics are useful, not only for their flavouring properties, but also for their value in all those cases of abdominal derangement where flatulence, pain, and spasm, resulting from vitiated secretions and undigested food, are present to increase the discomfort of the patient. Such dyspeptic phenomena are usually relieved rapidly by the use of these agents; and aniseed, cinnamon, caraway-seed, or even tincture of capsaicum in minute doses, will be found important additions to the prescription in all cases where alkalies are required.

In prescribing for children, the proper dose of a medicine cannot always be calculated according to the age of the child, and does not in all cases bear the same proportion to the quantity suitable for an adult. For certain drugs children show a remarkable tolerance, while to the action of others they show as remarkable a susceptibility. Thus, opium, it is well known, acts upon a child more powerfully than would be expected, judging from the mere difference of age. It should therefore be given to infants with

a certain caution, especially if the child be enfeebled by disease. It is, however, a medicine which is of especial value in the treatment of the diseases of infancy, and may be given without fear if care be taken not to repeat the dose too frequently. Belladonna, on the contrary, can be taken by children in large quantities. A child of two or three years old will bear without inconvenience a dose which in an adult might produce very uncomfortable symptoms.¹ Lobelia, again, is a remedy which is very well borne by children. Dr. Ringer has given it to "very young children" in doses of five minims every hour, and in no case has he noticed any ill effects to follow its administration. Arsenic should be given to children over five years of age in the same dose as that used to adults, and infants of a month or two old will take one drop of Fowler's solution three times a day with great benefit in cases of gastric catarrh. The influence of mercury upon young children deserves remark. It seldom in them produces stomatitis or salivation; but an excess of the drug is not therefore harmless: its influence is seen in the irritation of the alimentary canal which it so often excites, and in the profound anæmia which it induces. The anæmia which is so common a sequence of constitutional syphilis in infants is no doubt often a result of too long-continued mercurial treatment.—*Med. Times and Gaz.*, April 12, 1878.

CLINICS.

CLINICAL LECTURES.

Abstract of a Clinical Lecture on the Treatment of Psoas and other large Abscesses. Delivered at St. Thomas's Hospital, London. By JOHN SIMON, F.R.S., Surgeon to the Hospital.

In reference to several cases of large chronic abscesses under his care, Mr. Simon remarked that the only real difference between psoas and most other abscesses due to diseased bone was, that its cause was deep within the body. If the

¹ It is important to remember this in giving belladonna for its sedative effects, as in peritonitis, when it is often used for exciting action.

diseased bone could be removed, the abscess would heal; but the bodies of the vertebra were out of reach: the surgeon could only mitigate the symptoms, and leave the rest to nature. If the disease were only caries, a cure might result, with more or less angular curvature of the spine; but if necrosis were present, there was no chance of a cure, the dead bone was not absorbed, its presence kept up a constant purulent discharge, and this led to anaemia, to albuminoid disease of the liver and kidneys, and finally to death from hectic and exhaustion.

In all these cases of chronic suppuration, the amount of constitutional and visceral damage is closely proportioned to the amount of the discharge; the amount of the discharge is proportionate to the extent of the abscess-cavity, and this depends, to a great extent, on the time it is suffered to extend. The great point in the treatment of these cases is, as far as possible, to prevent the formation of a large pus-secreting cavity. If, therefore, there be any suspicion of the existence of deep suppuration, keep a sharp look out, and open the abscess as soon as you can detect fluctuation, unless the proximity of large vessels, or of other important structures, affords strong reasons for delay.

In situations where the progress of the disease can be watched, as, for example, in abscess of the knee-joint, the difference in the result, according to whether you let out the matter early or not, is very great. If the pus be soon evacuated, there is a fair chance of saving the limb, and even of regaining some motion in the joint; but if the incision be postponed, the joint soon becomes utterly disorganized, burrowing sinuses form, and the neighbouring soft parts become deteriorated by infiltration.

There is, however, this serious difficulty in opening a *psoas* abscess. Perhaps it forms a large bulging tumour in the groin, yet the patient is fairly well; you cut into it, he at once becomes feverish, and in a fortnight is *in extremis*; then an ignorant person may reproach you with killing the patient. But, however well and strong the patient may appear, it is certain that

this febrile condition will supervene sooner or later. It is inevitable. The longer it is postponed the worse it will be, since the cavity of the abscess will be larger. Be careful, then, always to explain to the friends of the patient, that the operation is a serious one, but that the consequence will be more serious the longer it is delayed. The severity of the consequent fever may, however, be greatly mitigated by treatment. Ten days ago, I opened a large dorsal abscess in a little girl, now under my care. I made a free incision, a very large quantity of thick pus escaped, and air was not excluded, yet the child has hitherto had no fever, and appears quite comfortable. All this time the cavity of the abscess is shrinking; and if the fever should now appear, it would be far less severe than it would have been had it occurred immediately after the operation. I owe this satisfactory state of things to the local application of cold; directly the pus was evacuated, an ice-bag was applied, and has been continued since. I have succeeded equally well in a large number of similar cases, and I can confidently recommend ice as an incomparable antiphlogistic.

Of course, if necrosed bone be present, the abscess will not entirely close; a mere sinus will, however, be left, which will not drain the patient to any considerable extent.

As I have said, I do not take extreme precautions to exclude air. At present I am inclined to reserve my judgment as to the value of the carbolic acid treatment, or at least as to the theory on which it is based; it is not yet proved that bacteria are the cause of unhealthy inflammation. Certainly air, as air, does not cause inflammation; and emptying an abscess by aspiration does not prevent the inflammatory process in its cavity. Recent experiments do, however, show that bacteria pass very readily in water, and attached to moist things; and common experience teaches us that infection is much more likely to be carried by sponges and surgical instruments that by mere air. From my own experience, I do not think that air, if only ordinarily pure and dry, is such a poison to surgical wounds as some

assert ; but, whatever your theory may be, always carefully disinfect all surgical instruments, etc., with boiling water.

Finally, I must qualify my advice with a caution; remember that fluctuation is not always due to pus. Open early all acute or chronic abscesses, but never cut into collections of blood or synovia. A bruise, in ill-conditioned subjects, may be followed by extensive extravasation of blood, causing a fluctuating tumour, which, if deep in the limb, might easily be mistaken for an abscess. If these extravasations be let alone, and treated with cold applications, they disappear, though they may take a long time about it; but an incision into one is generally followed by grave constitutional symptoms. If well-marked signs of inflammation appear, you must treat the swelling as an abscess; otherwise never open one.

When you are dealing with chronic suppuration, always look out for the chronic cause. The tendency of inflammation is to subside, unless there be a stimulus of some sort present. A man was admitted here some time ago, with a deep wound in the gluteal region, caused by falling on a spike; the wound did not heal, and after some weeks, on careful examination, a piece of his trousers was detected at the bottom. So, again, there is a boy with disease of the knee-joint, in my ward, whose leg has been saved entirely by attention to position. By extension of the limb, and pushing back the femur, we have greatly reduced the inflammation; and, whereas the child was before rapidly becoming worse, he is now as rapidly mending. Always treat such displacements in young subjects early and carefully; mere dislocation of the parts will keep up irritation and suppuration, without the presence of any dead bone.—*British Medical Journal*, May 10, 1873.

HOSPITAL NOTES AND GLEANINGS.

Acute Pulmonary Tuberculosis with almost Complete Absence of Pyrexia.—J. W., a dressmaker, aged 40, single, was admitted on September 8d into University College Hospital, under the care of Sir William Jenner. She had suffered from cough in winter for several years, and

for the last year or two a slight dry cough had persisted during the summer. She had always lived well, and, although never very strong, had enjoyed good health until about two months before admission, when her cough became more troublesome, the expectoration more abundant, and she began to perspire at night. She soon lost strength, and was obliged to give up work. Her father died of phthisis. On admission, the patient was much emaciated and very weak, and of well-marked tubercular build. There was some dyspnoea. On examining the chest, there was found marked dulness at the right apex with bronchial breathing and occasional coarse crackling; below there was harsh breathing with finer râles, except at the base posteriorly. There was deficient resonance over the whole left lung; absolute dulness at the apex, where also the breathing was almost tubular with large râles at the end of inspiration; below this there was bronchial breathing with moist râles down to the base. She rallied a little after admission, but soon began to suffer from occasional attacks of diarrhoea, lost ground slowly, and died on January 12th.

The remarkable feature of her case was her temperature. Up to December 6th it was occasionally below 98 deg., but never above 99 deg.; she had then a slight febrile attack which lasted three days, but the highest temperature was only 100 deg. Again, from December 20th to December 30th, the thermometer varied from 99 deg. to 100.6 deg.

Necropsy, Jan. 18th.—The lungs were everywhere firmly adherent. On section the right lung was studded with tubercles, which were far more abundant at the apex than at the base. The apex contained a few small cavities, the largest not bigger than a small bean; the tissue between solid and pigmented, containing opaque and softening tubercles. Lower down the tubercles were gray, semitransparent, and firm, evidently recent; the tissue between was crepitant, and here and there emphysematous, especially at the base; no appearance of recent pneumonia; lung-tissue everywhere tough. The left lung was small and contracted;

there was a cavity of the size of a small apple at the posterior part of the apex, more tough, solid, non-crepitating tissue than in the other, and fewer distinct gray granulations. The spleen was somewhat large and soft; it weighed nine ounces. The other organs were tolerably healthy.

In the course of the *post-mortem* examination, Sir William Jenner made the following remarks:—

The relation of pyrexia to phthisis is a point which has been hotly disputed, and probably will be for some time to come. The question whether tubercle is itself a product of inflammation, or whether the inflammation is only a secondary process, has given rise to much difference of opinion amongst pathologists; but there is another aspect of the question which is of far greater importance to us as practical physicians—viz., is fever an invariable and necessary companion of acute tuberculosis? can we ever diagnose from the presence or absence of elevation of temperature that tubercles are or are not in process of formation within the body? Some have asserted that the mere fact that a person's temperature was found, after careful observation, to keep within the normal limits, was absolute proof that the patient was not the subject of active tuberculosis. The truth of this statement has lately been questioned, and, I think, justly. It is in reference to this point that the records of cases like the present are valuable. Here is a woman who, after suffering for several years from pulmonary catarrh, becomes at last, as so often happens, the subject of acute deposition of tubercle, which carries her off in about six months. Yet during the four months she has been in hospital there has been an almost complete absence of pyrexia. Her temperature has been taken at least twice every day, and until the last month it has been uniformly below 99 deg. Only during the last four weeks has she had two febrile attacks, lasting a few days each. I must say that now I see the state of the lungs, I am myself somewhat surprised; I should scarcely have thought that such an amount of tubercle could be deposited

with so little elevation of temperature. No doubt a continuance of pyrexia without evident cause is of value in leading us to watch for evidence of the presence of tubercle; but after what we have seen to-day, I do not think that any of us will be likely to rely too much on the absence of pyrexia as conclusive evidence of the absence of tuberculosis.—*Brit. Med. Journ.*, April 5, 1873.

MEDICAL NEWS.

DOMESTIC INTELLIGENCE.

American Medical Association.—The twenty-fourth annual meeting of the American Medical Association was held in the city of St. Louis, on May 6th, Thomas M. Logan, M.D., of California, President, in the chair.

448 delegates were registered.

Dr. John S. Moore, of Missouri, on behalf of the medical profession of St. Louis, and Dr. J. B. Johnson, on behalf of the Committee of Arrangements, delivered addresses of welcome.

Drs. N. S. Davis, of Illinois, E. L. Howard, of Maryland, H. F. Askew, of Delaware, D. W. Yandell, of Kentucky, and J. M. Toner, of District of Columbia, were appointed by the President as the Committee on Ethics.

The President then delivered his annual address.

May 7. Dr. E. L. Howard, of Md., on behalf of the Committee on a plan for the better arrangement of the Sections, and for the more rigid examination of papers offered for publication, recommended amendment of the by-laws so that "the Chairmen of the several Sections shall prepare and read in the general sessions of the Association, papers on the advance and discoveries of the past year, in the branches of science included in their respective Sections; the reading of such papers not to occupy longer than forty minutes for each."

Also, that "no paper shall be read before either of the Sections the reading of which occupies more than twenty minutes. Such papers shall be referred by the Section to sub-committees specially appointed for their examination. The sub-commit-

tees shall be allowed thirty days for such examination, at the end of which time they shall forward the papers to the Committee of Publication with such recommendation as they may deem proper. The authors of such papers, however, may read abstracts before the session within the allotted twenty minutes. No member shall address the session more than once upon the same subject, nor speak longer than fifteen minutes without unanimous consent."

That article 4 of the by-laws be amended by adding "the Committee of Publication shall have full discretionary powers to omit from the published transactions, in part or in whole, any paper that may be referred to it by the Association, or either of the Sections, unless specially instructed to the contrary by vote of the Association."

That a new section (11) be added to the by-laws, as follows: "No new business, resolutions by members, etc., shall be introduced at the general sessions of the Association, except on the first and fourth days of meeting."

That the Sections be rearranged as follows:—

1. Practical Medicine, Materia Medica, and Physiology.

2. Obstetrics, and Diseases of Women and Children.

3. Surgery and Anatomy.

4. Medical Jurisprudence, Chemistry, and Psychology.

5. State Medicine and Public Hygiene.

The report and amendments were adopted.

Dr. N. S. Davis, of Illinois, moved that a committee, to be known as the Judicial Council, be appointed, consisting of twenty-one members, seven elected for one, seven for two, and seven for three years, and annually thereafter seven members shall be elected, to whom shall be referred all matters of ethics, etc. Adopted.

Dr. J. J. Woodward, U. S. A., on behalf of the Medical Staff of the Army, presented a memorial letter asking the influence of the Association in securing for the medical officers of the Army an equal footing with those of the Navy, as well as

with the officers of other staff corps of the Army.

Dr. Keller, of Ky., offered the following resolutions, which were adopted:—

Resolved, That in the opinion of this Association the rank of the medical officers of the Army ought to be fully equal to that of the officers of any other staff corps, or of the medical corps of the Navy. That we learn with regret that this is not the case, and that we regard with grave disapproval the odious discrimination thus made against a meritorious body of officers.

Resolved, That we look upon the law which prohibits promotion and appointments in the medical corps of the Army as unwise and unjust, and that, in our opinion, it ought forthwith to be repealed.

Resolved, That a committee of five be appointed by the President, to memorialize Congress on this subject, and that each member of this Association pledges himself to use all his influence with the member of Congress from his own district in behalf of the object of these resolutions.

The President appointed as the committee Drs. Keller, of Ky.; Askew, of Del.; N. S. Davis, of Ills.; John A. Murphy, of Ohio; J. M. Toner, of the District of Columbia.

Dr. Carson, of Ohio, presented the report of the Committee on Medical Education.

Dr. L. P. Yandell, Jr., of Ky., presented the report of the Committee on Medical Literature.

Dr. John S. Moore, of Mo., Chairman of the Committee on Prize Essays, reported that only one essay had been received, and that it was not judged worthy of the prize offered.

The President appointed as delegates to the British Medical Association, Drs. Francis Gurney Smith, of Pa.; Caspar Wister, of Pa.; J. Solis Cohen, of Pa.; E. Warren, of Md.; C. L. Ives, of Conn.; Edward Montgomery, of Mo.; Fordyce Barker, of N. Y.; Ed. Seguin, of N. Y.; J. C. Hutchison, of N. Y.; Paul F. Eve, of Tenn.; J. A. Alexander, of Va., and C. J. O'Hagner, of N. C.

The Treasurer reported a balance on hand of \$196.74.

The reports of the Librarian and Committee on Publication were presented.

The Committee on Nominations submitted the following report, which was adopted.

Place of next meeting, Detroit, Michigan, on the first Tuesday in June, 1874.

President—J. M. Toner, M.D., of the District of Columbia.

Vice-Presidents—Wm. Young Gadbury, M.D., of Miss.; James M. Keiller, M.D., of Ky.; N. C. Husted, M.D., of N. Y.; and L. F. Warner, M.D., of Mass.

Treasurer—Caspar Wister, M.D., of Pa.

Librarian—Wm. Lee, M.D., of D. C.

Committee on Library—Johnson Elliot, M.D., of D. C.

Assistant-Secretary—T. A. McGraw, M.D., of Michigan.

Chairmen of Sections.—Practice of Medicine, etc., Dr. N. S. Davis, of Illinois; Obstetrics, Dr. Theophilus Parvin, of Ind.; Surgery and Anatomy, Dr. S. D. Gross, of Penna.; Medical Jurisprudence, etc., Dr. A. N. Talley, of S. C.; State and Public Hygiene, Dr. A. N. Bell, of N. Y.

Judicial Council.—To serve three years: Drs. W. Brodie, of Mich.; N. S. Davis, of Ill.; E. L. Howard, of Md.; W. O. Baldwin, of Ala.; H. W. Dean, of N. Y.; J. P. Logan, of Ga. To serve two years: L. S. Joynes, of Va.; R. N. Todd, of Ind.; H. F. Askew, of Del.; J. E. Morgan, of D. C.; S. Lilly, of N. J.; S. N. Benham, of Pa.; C. W. Dunlap, of Ohio. To serve one year: J. K. Bartlett, of Wis.; Powell, of Ill.; Gale, of Ky.; S. G. Moses, of Mo.; J. E. Hughes, of Iowa; S. M. Bemiss, of La., and J. R. Bronson, of Mass.

Dr. N. S. Davis, of Ill., offered the following amendments to the Constitution to be acted upon at the next meeting of the Association: to substitute for the second paragraph of Section II. the following:—

"The delegates shall receive their appointment from permanently organized State Medical Societies and such County and District Medical Societies as are recognized by representation in their respective State Societies, and from the medical department of the Army and Navy of the United States of America."

And the following substitute for the fourth paragraph:—

"Each State, County, and District Medical Society, entitled to representation, shall have the privilege of sending to the Association one delegate for every ten of its regular resident members, and one for each additional fraction of more than half that number. The medical staffs of the Army and Navy shall be entitled to four delegates each."

Dr. W. F. Peck, of Iowa, offered the following resolutions, which were adopted:—

In view of the fact that the reports of the Surgeon General of the United States Army, as exhibited in volumes one and two of the first part of the Medical and Surgical History of the War of the Rebellion, have received a too limited circulation by reason of an insufficient issue of the same by Congress; therefore

Resolved, That the President and Secretary of this Association be directed to petition Congress, at the next session, in behalf of the profession, asking that the edition recently issued be reproduced in sufficient number to permit of general distribution to the members of the profession throughout the country.

Resolved, That the thanks of this Association are due and are hereby tendered Congress for aiding thus far in developing and presenting to the profession the reports of the Surgeon-General, as herein specified.

Resolved, That the thanks of this Association are hereby tendered the officers of the United States Army who have by sacrifice and labor been instrumental in placing before the profession the valuable information contained in volumes one and two of the first part of the Medical and Surgical History of the War of the Rebellion.

Dr. Frederick Horner, Jr., of Va., offered a resolution that the American Medical Association appoint a committee of one member from each of the original thirteen States of the Union, to report to the Centennial Celebration on the medical, surgical, and biographical literature of the period of 1776, as a tribute to Joseph Warren, Benjamin Rush, Arthur Lee, General Hugh Mercer, and other noble and patriotic physicians who aided to secure American Independence. Adopted.

Dr. Davis, of Ill., introduced a resolution to provide for full and careful reports of the proceedings of the various Sections at the next annual meeting, which was adopted, and a committee of five appointed for that purpose.

May 8. The Committee on the Nomenclature of Diseases presented a report with a resolution adopting the report as presented at Philadelphia in 1872. Dr. Woodward, U. S. A., presented a minority report with the following resolutions appended, which were adopted:—

Resolved, That in the opinion of this Association it is inexpedient to adopt the nomenclature and classification presented by the majority of the Committee on Nomenclature, at the meeting in Philadelphia.

Resolved, That a committee of three be appointed by the President, whose duty it shall be to communicate the foregoing resolution to the proper committee of the Royal College of Physicians of London, and to negotiate for the representation of the American Medical Association in the first decennial revision of their nomenclature.

The President appointed as such committee Drs. Woodward, of the U. S. Army, Jarvis, of Mass., and Stillé, of Pa.

The following resolution, offered by Dr. Toner, of the District of Columbia, was adopted:—

Resolved, That in the opinion of this Association it would be an opportune occasion, at the American Centennial of 1876, for holding an International Medical Congress, to consider, and if practicable to adopt, a uniform classification and nomenclature of diseases, to be used by the profession throughout the world.

Dr. N. S. Davis, of Ill., reported on behalf of the Committee on Ethics that a sufficient number of the charges against the Pathological Society of Berks County, Pa., were sustained to justify the recommendation that the said society be not allowed a representation in this Association. The report was adopted.

The special committee appointed to consider the subject of attaching a salary to the office of Permanent Secretary, reported in favour of the existing by-law,

recommending that no specified salary be attached to the office. The report was adopted.

Dr. Keller, of Ky., offered the following resolution, which was adopted:—

Resolved, That the sum of \$500 be appropriated as an honorarium for the services of the Permanent Secretary during the present year, provided such amount remains in the treasury after paying necessary expenses.

Dr. Bell, of New York, offered the following:—

Resolved, That, in the judgment of this Association, the establishment of a National Sanitary Bureau, with relations to the general government similar to those of the bureaus of agriculture and education, is highly desirable as a means of promoting sanitary science and the protection of the public health.

Resolved, That this Association request of the United States Educational Bureau to so extend its scope of inquiry as to include vital diseases and mortuary statistics, in relation to local meteorological and geological influences, and to disseminate the information so collected throughout the country.

The resolutions were adopted and referred to the Committee on Public Hygiene.

Dr. Davis, of Ill., on behalf of the committee appointed to devise and recommend some plan for securing a more complete report of the doings in the several sections, submitted the following resolutions, which were adopted:—

Resolved, That the Committee of Arrangements for each annual meeting of the Association are instructed to secure the services of a sufficient number of photographic reporters to have one in attendance on the regular sessions of each of the Sections in the afternoon, as well as during the general morning sessions. That the reports thus obtained be printed the same evening on slips or proof-sheets in sufficient number to supply all the members of the Association in attendance, early the following morning.

The second resolution provides for the payment of the expenses thereby incurred out of the funds of the Association. The

third resolution provides for the selection and revision of the most valuable parts of the proceedings and their transmission to the Secretary for publication within twenty days after the adjournment of the Association.

On motion of Dr. R. M. Bertolet, of Pa., it was

Resolved, That the President appoint a committee of three, to report, at the next annual meeting, upon the progress of Otology. Drs. D. B. St. John Roosa, of N. Y., R. M. Bertolet, of Pa., and S. Sexton, of N. Y., were appointed the Committee.

Dr. E. L. Howard, of Md., presented the following resolution concerning the election of officers, which was, by the rules, laid over until the next meeting.

Resolved, That article 4 of the constitution be amended as follows: Strike out second clause of first paragraph and insert: "They shall be nominated by the Judicial Council, and shall be elected by vote on a general ticket."

May 9. Dr. A. M. Pollock, of Pa., offered the following amendments to the Constitution and By-laws, which were laid over until next meeting.

That in Art. VI. of the Constitution, line 4, the word "five" be stricken out, and the word "ten" be inserted, when it will read, "Funds may be obtained by an equal assessment of not more than ten dollars annually, on each of the delegates and permanent members."

And in the By-laws, Art. V., line 1, strike out the word "five" and insert the word "ten," when it will read, "The sum of ten dollars shall be assessed annually, upon each delegate to the sessions of the Association, as well as upon each of its permanent members, whether attending or not, for the purpose of raising a fund to defray necessary expenses."

In a short farewell address the President adjourned the Association to meet in Detroit on the first Monday in June, 1874.

Notes of Practice at Bellevue Hospital, New York. Chronic Synovitis of the Wrist-joint.—Dr. BURCHARD, one of the staff of the 2d Surgical Division, has devised a simple apparatus for applying extension

and counter-extension in these cases, which is very efficient, and productive of results satisfactory to the patient.

The indication is to entirely prevent the articular surfaces of the joint from coming in contact.

This indication is fulfilled by means of a wide palmar splint extending from the middle of the forearm to three or four inches beyond the fingers, narrowing as it passes beyond them.

At each corner of the upper end of the splint is a small slot. At the lower end of the splint is a round hole of a size proper to receive a violin-key.

The splint is then padded in such a manner as to accommodate the irregularities of the limb.

Adhesive straps are now applied to the forearm, doubling upon themselves so as to form loops, passing from below upwards.

These loops are attached to the slots in the upper corners of the splint by means of tapes. This fastens the splint at its upper extremity. A broad band of adhesive plaster is next attached to the dorsum of the hand, passes a convenient distance below the fingers, doubles upon itself, and is attached to the palmar surface of the hand.

A small piece of board is then placed in the termination of this loop, in which a hole has been pierced for the reception of a piece of catgut, which is to pass out and become fastened to the violin-key.

The broad loop is then cut through in places corresponding to the interdigital spaces, and each finger-basket strapped, leaving the loop in its connection with the ends of the fingers intact.

The violin-key can now be turned, and any amount of extension made which may be desirable.

This apparatus is easily controlled by the patient, and the relief which it affords is sufficient guarantee that its application will be faithfully adhered to.—*Med. Record*, April 15, 1873.

Liquor Picis Alkalinus.—Dr. L. D. BUCKLEY, of New York, gives the following formula for this preparation, which was originally devised by his father: B. Li-

quid pitch 3ij; caustic potash 3j; water fʒv. Mix and dissolve for external use. This mixes with water in all proportions, and only moderately discolours the skin. It dries rapidly and leaves very little stickiness. He has used it in all degrees of strength, and regards it as the best preparation of tar.—*Archives of Sci. and Pract. Med.*, Feb. 1873.

The Wharton Trial.—In the case of Mrs. Elizabeth G. Wharton, charged with attempt to poison Eugene Van Ness, the prosecution has entered a stay of proceedings, which is a virtual abandonment of the case.

Vermont Asylum for the Insane.—Dr. Wm. H. Rockwell has resigned the superintendency of this institution, in consequence of permanent disability from fracture of the thigh. Dr. Joseph Draper, of the New Jersey State Asylum, has been appointed to fill the vacancy.

A New Hospital at Baltimore.—Mr. John Hopkins, of Baltimore, recently conveyed by deed to trustees thirteen acres of land in the city of Baltimore for the erection thereon of a hospital for the relief of indigent sick and orphans, and has also donated \$2,000,000 for the support and maintenance of the institution.

FOREIGN INTELLIGENCE.

A Foreign Body in the Blood in Relapsing Fever.—Dr. PONICK, of Berlin, writes to the *Irish Hospital Gazette* (April 1, 1873), that the attention of the medical circles in Berlin has recently been excited by a discovery, which is, perhaps, destined to have an important influence on our ideas in reference to the pathogenesis of relapsing fever; and, possibly, also to the nature of the so-called symptomatic diseases. Dr. Obermeier, one of the physicians of the Charité, has, within the last few days, directed attention to the presence of a foreign body in the blood; and Professors Virchow, Frerichs, and Langenbeck have acknowledged and confirmed the same. Dr. Obermeier has very kindly submitted several specimens for my own examina-

tion in the Pathological Institute. The blood recently taken from patients suffering from relapsing fever was immediately brought under the microscope without any addition. On the persistent contemplation of a fixed portion of the microscopic field, peculiar filiform bodies—which are of about the same size as the finest filaments of fibrine, with a length of three red corpuscles, and with a very delicate contour—are seen to emerge in the plasma, amongst the blood-corpuscles. As long as the blood remains fresh, one observes distinct movements, which manifest themselves not only as undulatory movements in the filaments themselves, but also as a power of locomotion, which enable them to travel across the field of vision. One sees, especially, that the bodies exhibit spiral contractions, then again extend themselves, sometimes appearing, and as quickly disappearing, to the view.

Dr. Obermeier has ever failed to find these bodies in the blood of healthy persons, and also of patients suffering from other symptomatic diseases. It is worthy of observation, that they are visible in the febrile stage, but are not seen in the stage of remission, and shortly before or during the crisis. On the occasion of a short communication which Dr. Obermeier made in the Medical Society of Berlin describing his discovery, Langenbeck pointed out the importance of this fact, and complimented him on the carefulness and caution displayed in abstaining from the adoption of any hypothesis in reference to the nature and the pathological relations of these bodies.

In many cases of relapsing fever pronounced icterus was observed. Then the course of the disease was unfavourably modified by the severe and intense nervous depression incidental to cholæmia, and thereby assumed an unusually asthenic character. Few of those patients who were in the prime of life died directly from the disease; but generally sank from the effects of pneumonia, which set in after the remission of the fever, and—in conjunction with the consequences of icterus—usually produced a fatal termination.

On post-mortem examination one finds

an essential difference between the cases where the patients sank during an attack, and those in which they died in the stage of remission, or during the re-convalescence. In all, the spleen was enlarged (in some cases even unto rupture); in the first it was of a dark-blue colour, and resistent on pressure; in the latter of a bright-red colour, and with a soft, flabby consistence. On a section of this organ, one finds a diffuse, venous congestion, attended with a general hyperplasia of the pulpa and of the follicles. In no other disease is the swelling of the Malpighian corpuscles so striking; they present a whitish-yellow colour, and occasionally an abscess-like appearance. In some cases, in addition to these diffuse changes, distinctly circumscribed portions, which resemble, as well in situation as in appearance, the different stages of embolic infarcts, are met with. They are of a round or wedge-like form, generally located immediately under the capsule; in the earliest stage dark-purple, then gradually assuming a lighter colour, even unto a pale straw. Like the infarcts, they later become necrotic, form sequestra, and may so cause perisplenitis, or even—when the process is extremely active—penetration of the capsule and subsequently peritonitis. In two cases, which came recently under my observation, death ensued by a general peritonitis from such an accident. The liver, like the spleen, is always abnormally large, of a reddish-yellow colour, and firm against pressure. On section, the liver tissue is somewhat pale, and manifests the usual appearance of fatty infiltration. On the microscopical examination one finds the liver-cells more or less filled with fat, and the inter-acinous connective tissue is considerably increased. Probably, a part of these organic changes owes its origin to the abuse of alcohol, so often practised by these patients. The biliary ducts are filled with retained gall-fluid even unto the remotest ramifications. But yet the ductus choledochus is free, and the contents of the intestines have their normal colour.

The kidneys especially demand the attention of physicians, in that the appearances evident during life render an exact

diagnosis of their condition practicable. Careful observers have lately pointed out, that the urine during an attack of relapsing fever is liable to a series of important changes; for example, fresh blood, hemorrhagic, or fibrinous cylinders, and fatty degenerated epithelium, are found separately or together in the majority of cases. On an examination, the kidneys show an enlargement in every diameter: the surface is generally pale, often variegated with hemorrhagic spots. On the section the cortical substance is swollen and somewhat cloudy-opaque, with here and there brown and red lines, indicating old and recent hemorrhages. The pyramidal portion is only slightly swollen, but presents also many converging gray streaks, often mixed with brown. A microscopical examination reveals that particular condition of the epithelium, lining the tubuli contorti, to which Virchow has given the name "parenchymatous inflammation"; that is, degeneration of the cell protoplasm, characterized by the appearance of albuminous granules, which later undergo a fatty metamorphosis. On the red or brown spots one finds red blood-corpuscles, not only free, but also inclosed in an exudative mass. The fibrinous casts are generally found in the tubuli recti of the pyramidal portion. In some rarer cases hemorrhages are observed, not only in the secretory substance, but also in the pelvis of the kidney, and even in the bladder.

Notwithstanding these extensive organic changes the patient often attains a state of convalescence. But now another serious danger threatens in the intense susceptibility of the *respiratory organs*. It is striking, that the convalescent from relapsing fever is peculiarly predisposed to affections of the respiratory tract, and naturally a patient so debilitated is rarely able to resist such a new attack. The pneumonia most generally observed is fibrinous and lobar, and takes its origin in the majority of cases in the base of the lung. In other cases there is catarrhal pneumonia, with a lobular infiltration more or less confluent. In the later periods of the disease some dangerous symptoms are apt to arise in the pharynx and

larynx in the shape of an acute congestion. Moreover, in the larynx, ulceration was observed very generally, either superficial or deep, penetrating to one of the cartilages. In one or two cases sudden death ensued from an acute oedema of the lining membrane of the aditus laryngis, a consequence of the ulceration.

Heart Disease from Over-exertion.—An important discussion recently took place at the Clinical Society of London, on the consequences of the extent to which rowing and other athletic exercises are used by young men. The discussion was opened by a paper by Dr. Clifford Allbutt, an university graduate and an Alpine climber, on overstrain of the heart and aorta. He was naturally, and especially as a young physician, lenient in his view of the part played by the abuse of athletics in the causation of the cases which he had observed; but he fully explained its mechanism. In the debate which followed (fully reported in the *British Med. Journal* of March 15) Dr. Greenhow stated that he had seen a dozen cases of harm from athletic sports, and at present had under his care a case of dilated heart from Alpine climbing. He expressed his opinion that injury from athletics was not uncommon. Dr. Poore referred to the case of the celebrated hound Master McGrath. At the *post-mortem* examination, Dr. Haughton had found the heart much dilated and greatly hypertrophied. Dr. Austie referred to the case of a Swiss young gentleman, in whom severe angina was produced by inordinate walking. He remained in a dangerous position for some time, but at length recovered. Mr. Myers (Coldstream Guards) agreed with Dr. Greenhow in thinking that it would be a great mistake to encourage the youths of our country to undergo violent exertion, by letting it be supposed that athletic exercises did not sometimes injuriously affect the heart. It would be better policy to teach moderation, and thus prevent, or at least check, many cases of incipient heart-disease, such as irritability and slight hypertrophy, with or without dilatation. He believed that this, as a result of hard training in our public schools and

universities, was far more common than was generally supposed; but that it was not detected, owing to the time of life at which it occurred, and to the fact that after a few years these men led quieter lives, and did not therefore continue to overstrain their hearts. In proof of this early development of heart-disease by overstrain, Mr. Meyers stated that, after he had satisfied himself that the irritable heart of the young soldier was to a great extent induced by overstrain by tight clothing and accoutrements, he examined the pulses of men who had recently undergone hard training in the public schools and universities, with precisely the same result. The sphygmograph might be made of much use in the early diagnosis of this class of incipient heart-disease. Mr. Kesteven related the particulars of a case which had come under his notice in which cardiac disease from rowing existed. Dr. Farquharson, formerly medical officer of Rugby School, agreed with Dr. Clifford Allbutt that athletic exercises in moderation, and after due preparation, were seldom injurious. Bad consequences were only met with in persons naturally feeble, or temporarily debilitated, who undertook sudden and severe exertion without previous training. In the very few instances in which he had met with cardiac strain, while medical officer to Rugby School, the boys had usually been working hard, and had undergone excessive physical fatigue when worn out by mental labour. Assistant-Surgeon Nathan had analyzed a large number of heart cases at Haslar Hospital.* Out of 850 in which he was able to determine their cause, 65 were directly due to violent exertion. Dr. John Ogle (of St. George's Hospital) said that, at the time of the discussion which some years ago occurred on the effects of continued and violent muscular exercise upon the heart, especially in connection with the observations of the late Mr. Skey, he was much impressed with the idea that the evils consequent on rowing, gymnastics, cricket, and other athletics, had been greatly exaggerated by some, and much under-estimated by others. Whilst firmly believing in the advisability and

necessity of encouraging athletics at our universities and public schools, he was of opinion that there existed evidence showing that in many cases health was injured and lives damaged and impaired, by undue exercise at the universities, etc.; though, of course, it would be as absurd as unscientific either to condemn or to support any system merely upon the strength of a limited number of cases. In all probability, severe athletic sports would not do harm in the case of those whose organs were sound and free from disposition to disease, and who were trained wisely and cautiously; but in large collections of boys and young men there must of necessity be many who spontaneously undertook, or have been induced to undertake, severe sports, and who were, naturally or from temporary causes, quite unfitted for them. Many undergraduates possessed delicate organs; and he believed that it would be prudent if at the universities and schools those who intended to row, or participate in any violent games, were obliged to obtain a certificate from some competent physician as to their being in a state to undertake such exercises, and under what conditions and restrictions (if any were requisite). Dr. Ogle had seen an oarsman at Oxford taken out of the boat casting up blood profusely. Dr. Church and others had seen haemoptysis ensuing upon violent rowing. Dr. Ogle had lately seen a gentleman, aged forty, residing on the banks of the Thames near London, who took pupils preparatory to the universities, and who was in the habit of pulling in a four-oar with them every evening. He had a decided hypertrophy and valvular mischief of the heart, traceable solely to regular and severe over-exertion. Dr. R. J. Lee said that the universities would perceive with gratification the tendency now prevailing to consider the subject of exercise with scientific attention; and he regretted that the medical profession had hitherto refrained from doing so. The enumeration of isolated cases in which injurious results had followed excessive exercise was not a scientific method of investigating the principles by which exercise was to be regulated. He had for some years been

engaged in considering the subject of exercise and training with a view to correct the mistakes which were made, and to prevent those unfortunate consequences which ignorance produced. The different effects produced upon the heart and vessels by different kinds of muscular exercise might be divided into two classes: those resulting from briefly sustained but very active exertion, as in short, quick races either on foot or in a boat; and those in which the exercise was not in the same sense excessive, but was sustained for some hours, as in Alpine climbing. In the former case, the muscular contractions were so powerful as to force the blood from the veins, arrest its flow through the arteries, and so produce congestion of the heart. Those who were in the habit of rowing much in races were well aware of this fact, generally known as "losing wind," and were particularly careful to avoid it. In the case of Alpine climbing, which resembled to some extent the muscular exertion employed in those cases referred to by Dr. Allbutt, the organs of respiration were chiefly oppressed, and the tension of the vessels was increased considerably. The right side of the heart was more often affected by such exercise.—*London Med. Record*, March 19, 1873.

[This discussion is well worthy of consideration in this country, where rowing, base-ball, cricket, and gymnastic exercises are often indulged in to the great injury of some of the participants.]

Ligation of the Arteria Innominate.—Mr. E. S. O'GRADY, of Mercer's Hospital (*Brit. Med. Journ.*, May 10, 1873), lately ligatured the innominate artery for an aneurism of the subclavian in a patient nearly sixty years of age. The common carotid artery was also tied, but death took place the following day, with apoplectic symptoms. No post-mortem examination was permitted.

Treatment of Pyelitis by the Inhalation of Oleum Pini Æthereum.—The Vienna correspondent of the *Irish Hospital Gazette* (April 15, 1873) reports that Prof. DITTEL, the well-known stricture special-

ist, has for some time past employed inhalations of *oleum pini aethereum* (obtained from the cones of several indigenous species of pine), with great success in cases of pyelitis. Even after the first few inhalations, the characteristic smell of violets can be detected in the urine, and at the same time the pain and constant and distressing inclination to make water cease, the amount of sediment in the urine diminishes, and soon both ease and sleep return to the patient. Inhalations are, however, only useful in cases of uncomplicated pyelitis which have not been too long neglected. In cases where there is any complication (more especially nephritis), we must proceed with the greatest caution, and only continue the inhalations so long as the inclination to make water lessens, and the absolute quantity of sediment in the urine diminishes. Should fever be set up, and should the inflammatory symptoms increase, further inhalation will only do mischief. At first the patient inhales only twice a day, for about five minutes each time; if he bears this well, and should no contra-indicating head symptoms appear, then the number of inhalations may be increased to three or four. Should he be attacked with headache or sickness of stomach, we must stop the inhalations.

The chief difference between Dr. Dittel's apparatus and others is, that in his the fluid through which the patient inspires is not warmed. This simplifies it greatly without injuring its usefulness, a great object in practice. The apparatus consists of a wash-bottle, such as is to be found in every chemical laboratory, slightly modified; in other words, a middle-sized bottle with a large body, gradually tapering to a long neck. In the stopper, which is made of India-rubber, there are two holes, through each of which runs a glass tube, one reaching nearly to the bottom of the bottle, the other to within two inches of the contained fluid. To this last tube is fastened an India-rubber pipe, and to this again a mouth-piece, modified so as to suit the patient. For the sake of cleanliness this mouth-piece is, in Dittel's clinique, made of glass. In an emergency a quill is a good substitute. If now, after

from 4-6 oz. of the above-mentioned balsamic oil have been poured into the bottle and well corked down, the patient draws a deep breath through the mouth-piece, the air of the room enters through the second tube, traverses the fluid and enters the lungs impregnated with particles of the oil. The smell of violets, which may soon after be detected in the urine, gives us sufficient proof that the oil has entered by the circulation, and has been excreted by the kidneys. Dr. Dittel recommends this method, which is also suited to other catarrhal affections (for instance, pulmonary emphysema) very warmly for further trial, and confirms the good results obtained by it by the enumeration of numerous cases in one of our medical periodicals.

Veratrum Viride in Acute Rheumatism.—Heuser (*Allg. Med. Centralzeit.*, Jan. 1873) considers veratrum viride to be superior to any other remedy in acute rheumatism. He uses a mixture of 1 part of the tincture with 4 of rectified spirit and 5 of water. Three to five drops of this mixture are given every two hours, and the joints kept warmly rolled up. The author has also observed the best effects result from its use in pleurisy, and considers that it will supersede digitalis in pneumonia and bronchitis. He warns against the use of large doses, which impair the remedial action of the drug. Five drops of the tincture reduced the pulse rate to one-half, and produced vomiting, weakness, cold sweats, a feeling of tearing and numbness in the extremities, and muscle convulsions.—*London Med. Record*, March 19, 1873.

Local Treatment of Skin and Syphilitic Diseases.—In an article published by Dr. GAMBERINI in the *Giornale Italiano delle Malatt. Ven.*, the author gives a list of the various cases treated in the special department of the Hospital Sant' Orsola of Bologna, and makes the following remarks as regards the local treatment of the skin manifestations: "In soft ulcers, iodoform combined with glycerine was eminently successful (two drachms and a half of iodoform to one ounce of glycerine). Carbolic acid and tincture of iodine were

also highly beneficial. Depilation and parasiticidal lotion formed the treatment of the various kinds of favi." The non-syphilitic skin manifestations were attacked according to their fundamental cause: the arthritic by alkalies; the herpetic by arsenical preparations; the scrofulous by anti-scorfulous remedies; with the result of showing the excellence of Dr. Bazin's doctrines.—*The Lancet*, April 12, 1873.

Local Employment of Chlorate of Potash in Cancerous Sores.—In the *Berl. Klin. Wochenschrift*, No. 6, 1873, Dr. BUROW, of Königsberg, advocates the local employment of chlorate of potash in the treatment of cancerous sores. His proceeding consists in sprinkling the sore with chlorate of potash in powder or crystals, and covering the whole with a wet compress. As the crystals of chlorate of potash exert a more powerful action than the powder, and excite greater pain, Dr. Burow uses the powder first, and replaces it by the crystals when sensibility has been abated. One of the cases was a cancerous sore of the left arm, which healed completely after eight weeks' treatment. Three other cases were cancerous sores of the breast; one was lost sight of, the other two are under treatment, and healing well. The fifth case recorded was connected with a cancer which originated in the periosteum of the upper jaw and left cheekbone, and then became ulcerated; in this case healing was complete in three months.—*The Lancet*, April 12, 1873.

Chloral in the Treatment of Tetanus.—Mr. CARRUTHERS, House-Surgeon to the General Infirmary, Northampton, states (*Brit. Med. Journ.*, April 26, 1873) that he has had several cases of tetanus under his observation during the last four years, and, amongst the various remedies employed, not one has given so much relief to the patient as chloral. Calabar bean reduces the spasm when it is injected; its action, however, is only temporary. There has been one case of recovery under its use, but lately it has not acted satisfactorily. Chloral not only relaxes the spasm,

but induces sleep (a powerful aid towards recovery); and during its use he has never seen trismus or dysphagia ever become severe, even in fatal cases. We may therefore safely depend, he says, upon relieving two of the most distressing symptoms, even if we do not save life, by the administration of this remedy.

Hydrate of Chloral in Obstetrics.—Dr. DUJARDIN-BAUMETZ has recorded, in the last number of the *Gazette Médicale de Paris*, several cases in which the use of hydrate of chloral was remarkably successful. In the first case (primipara, protracted cephalgia, oedema of legs and eyelids, albumen in urine) a fit of eclampsia supervened two days before the labour, and lasted ten minutes. An enema with one drachm of chloral was administered, and the patient fell asleep. On the day of the accouchement, as a precaution and to avoid a recurrence of the fit, two enemas, with one drachm of chloral in each, were administered at two hours' interval. No fit occurred, and, furthermore, the contractions were quite painless, though they were even more intense and frequent than normal. In the second case, where albumen was found in the urine, there existed the usual conditions for eclampsia. Hydrate of chloral was administered as a preventive, and no fit occurred. Lastly, in several other cases, where the patients were excitable, nervous, and weak, Dr. Dujardin-Baumetz gave chloral with the greatest benefit, in doses of from one-half to one drachm. It always had the effect of soothing the pain, and, moreover, of accelerating the process of labour. Dr. Baumetz much prefers chloral to chloroform in eclampsia, but recommends that it should be administered in sufficiently strong doses (two and even three drachms).—*The Lancet*, April 12, 1873.

Convulsions in an Infant due to the abuse of Alcohol in the Nurse.—M. VERNAY relates a very striking case of the mischievous consequences which may result from the abuse of wine-drinking in a nurse. A child was taken with convulsions, and during five days all sorts of means, like calomel, bromide of potassium,

the hot bath, musk, belladonna, etc., were uselessly employed. M. Vernay was eventually told that the nurse drank six to eight glasses of French wine in the day, and had some more at night. It occurred to him that the convulsions in the child might be due to the alcoholic liquid thus absorbed by the nurse. The wine was ordered to be stopped, and the convulsions ceased immediately after.—*Lancet*, April 26, 1873, from *Lyon Médicale*.

Ammonia in Workshops as a Preventive of Mercurial Poisoning.—In a recent communication to the Paris Academy of Sciences, Dr. Meyer made known the excellent results which he had obtained in preventing all symptoms of mercurial poisoning in the looking-glass manufactory of St. Gobain by sprinkling the floor with ammonia. He cannot explain the preservative action of ammonia, and it was accidentally that he discovered this effect; but he states that during the five years that it has been employed at St. Gobain, not one case of poisoning has been observed among the workmen, whilst there is a marked amendment in the symptoms of those who were previously affected. About half a litre of common liquid ammonia is simply to be sprinkled on the floor of the workshop every evening after the day's work.—*Lancet*, April 26, 1873.

Death from Chloroform.—At the meeting of the Société de Chirurgie of April 30, M. Léon Le Fort communicated a case of death from chloroform. The subject was a man thirty years of age, apparently in very good health, who applied at the hospital on account of a fissure of the anus. M. Le Fort proposed treating it by forced dilatation, to which the patient readily agreed, but as he had just eaten, the operation was put off until the next visit. On that day chloroform was administered without anything remarkable occurring, the patient falling into a calm and peaceful sleep, the pulse and respiration being regular and normal. The dilatation having been accomplished, M. Le Fort examined the condition of the patient again, and found that he continued to sleep in a manner that caused no uneasiness. A few instants afterwards, how-

ever, his attention was forcibly attracted by stertorous breathing, and he found that the patient's face had become cyanotic, and that the pulse had disappeared. His tongue was instantly drawn forward, and the various modes of effecting artificial respiration were put into force. But these, as well as the electrical current, proved of no avail, for the patient was really dead. At the autopsy nothing worthy of note was observed, except the existence of two small pulmonary cavities, which nothing in the external appearance of the patient could lead to suspect, and which seemed to have had no effect upon his general health.

Cholera.—The municipality of Berlin, alarmed at the 139 cholera cases at St. Petersburg since March, is preparing for the repulse of the disease. Meanwhile, typhus fever abounds in the North German capital.—*Lancet*, April 26, 1873.

Eye Hospital at Geneva.—Baron ADOLPH de ROTHSCHILD has given \$100,000 for the foundation and endowment of a hospital for diseases of the eye at Geneva.

Prize Essays.—For the purpose of advancing the cause of humanity under the symbol of the red cross in time of peace, Her Majesty the Empress of Germany, upon the occasion of the World's Exhibition at Vienna, has offered two prizes, in the sum of 2000 Thalers each, for the following two essays:—

No. 1, for the best manual of technical surgery in war;

No. 2, for the best treatise on the Geneva Convention;

And in addition thereto, Her Majesty has granted a like sum, both for awarding premiums to articles, to be used for sanitary purposes in the field, exhibited at Vienna, and for purchasing the same.

The undersigned Central Committee, charged with the duty of carrying out Her Majesty's designs, request all persons desirous of competing for the prizes, to observe strictly the following rules deemed essential in making the award.

The manual referred to under No. 1, in describing the different methods of dress-

ing wounds and applying bandages, and the surgical operations occurring in war, must concisely and briefly state the present standpoint of technical surgery in war, so as to form an indispensable companion and practical assistance for every army surgeon.

The essay under No. 2 must contain a history of the origin of the Geneva Convention, and a statement and examination of the results experienced in carrying it into effect, together with suggestions for its further development by additions and modifications.

The prize essays written in German, French, or English, must be sent to the undersigned Central Committee not later than the 15th of May, 1874.

They must be without signature, but distinguished by a motto and accompanied by a sealed envelope, reproducing this motto on the outside, and containing within the name and residence of the author.

On the 18th of October, 1874, the prizes will be awarded to the essays to which they shall have been adjudged by a jury composed of three members, designated severally by the Austrian Patriotic Aid Association for wounded soldiers and the widows and orphans of soldiers at Vienna, by the International Committee at Geneva, and the undersigned Central Committee.

The author will have the right to publish the essay which shall obtain the prize, but if within a period of six months from and after the date of the award, he shall not have availed himself of such right, it will revert to the undersigned Central Committee.

Von Holleben, Chairman of the Central Committee of the German Associations for the relief of wounded and sick soldiers in time of war.

BERLIN, May 1, 1873.

OBITUARY RECORD.—Died at Munich, on the 18th of April, Baron Justus Von Liebig, in the seventieth year of his age. Justus Liebig was born at Darmstadt on the 18th of May, 1803, and graduated as Doctor of Philosophy at the University

of Erlangen in 1822. He then removed to Paris and prosecuted with zeal his chemical studies; and in 1824 communicated to the Institute of France the results of his researches on "Fulminic Acid and the Fulminates," which gained for him marked distinction. Through the exertions of Alexander Von Humboldt he was made in that year Professor of Chemistry at the University of Giessen, and for a quarter of a century his laboratory was the centre of attraction for aspiring chemists from every quarter of the globe. In 1837 he graduated as Doctor of Medicine at the University of Göttingen. In 1845 Liebig was raised to the rank of Baron by the Grand Duke of Hesse; and academic honours poured in upon him from every country. In 1852 he accepted the Professorship of Chemistry at Munich, which he held until his death.

Liebig perfected the method of organic analysis, and may, indeed, be regarded as one of the creators of the science of organic chemistry. The works which he published were as valuable as they are numerous.

"Fuller of honours than of years the greatest of contemporary chemists has just passed away."

— at London on the 20th of April, of cardiac dropsy, HENRY BENCE JONES, M.D., aged 59 years.

Dr. Bence Jones graduated as Bachelor of Arts in 1836, at Trinity College, Cambridge, and proceeded to study medicine at St. George's Hospital, London. In 1841 he enjoyed the benefit of Baron Liebig's instruction at Giessen, and in 1845 he was appointed physician to St. George's Hospital. He devoted special study to pathological chemistry, and particularly to the chemistry of the urine. His contributions to the transactions of the various learned societies in England, and his independent publications are numerous, and have gained for him an enviable fame and many honourary distinctions.

In his death physiological chemistry has lost one of her most earnest and successful votaries, and the science of medicine one of her most useful and eminent cultivators.

FLINT'S PRACTICE—New Edition—Now Ready.

A TREATISE ON THE
PRINCIPLES AND PRACTICE OF MEDICINE;
DESIGNED FOR THE USE OF STUDENTS AND PRACTITIONERS OF MEDICINE.

By AUSTIN FLINT, M.D.,

Professor of the Principles and Practice of Medicine in Bellevue Medical College, N. Y.

Fourth Edition, Revised and Enlarged.

In one large, and closely printed octavo volume of nearly 1100 pages: handsome extra cloth, \$6 00; or strongly bound in leather, raised bands, \$7 00.

Preface to the Fourth Edition.

Since the publication of the Third Edition of this work, in October, 1868, the advances made in many departments of practical medicine have seemed to call for a thorough revision. In the performance of this duty the Author has sought to introduce the results of his continued clinical studies, together with the latest contributions to medical literature, both in Europe and this country without changing the character of the volume as a condensed text-book and work of reference. This has required the rewriting of some portions, as well as numerous additions throughout, but more especially in the Section devoted to Diseases of the Nervous System, causing an increase in the text of about seventy pages.

To accomplish this has required no little labor, and in return the Author hopes for the satisfaction derivable from a continuance of the favor with which the work has hitherto been received by the profession.

NEW YORK, April, 1873.

By the common consent of the American and English medical press, this work has been assigned to the highest position as a complete and compendious text-book on the most advanced condition of medical science. Notwithstanding its increased size, it has been maintained at its very moderate price, rendering it in all respects one of the cheapest works now before the profession. A few notices of former editions are subjoined.

Admirable and unequalled.—*Western Journal of Medicine*, Nov. 1869.

One of the best works of the kind for the practitioner, and the most convenient of all for the student.—*Am. Journ. Med. Sciences*, Jan. 1869.

This is in some respects the best text-book of medicine in our language, and it is highly appreciated on the other side of the Atlantic, inasmuch as the first edition was exhausted in a few months. The second edition was little more than a reprint, but the present has, as the author says, been thoroughly revised. Much valuable matter has been added, and by making the type smaller, the bulk of the volume is not much increased. The weak point in many American works is pathology, but Dr. Flint has taken peculiar pains on this point, greatly to the value of the book.—*London Med. Times and Gazette*, Feb. 6, 1869.

Published in 1866, this valuable book of Dr. Flint's has in two years exhausted two editions.

and now we gladly announce a third. We say we gladly announce it, because we are proud of it as a national representative work of not only American, but of cosmopolitan medicine. In it the practice of medicine is young and philosophical, based on reason and common sense, and as such, we hope it will be at the right hand of every practitioner of this vast continent.—*California Med. Gazette*, March, 1869.

Considering the large number of valuable works in the practice of medicine, already before the profession, the marked favor with which this has been received, necessitating a third edition in the short space of two years, indicates unmistakably that it is a work of more than ordinary excellence. A marked feature in the work, and one which particularly adapts it for the use of students as a text book, and certainly renders it none the less valuable to the busy practitioner as a work of reference, is brevity and simplicity.—*St. Louis Med. Archiv*, Feb.'69.

BY THE SAME AUTHOR.

A PRACTICAL TREATISE ON THE PHYSICAL EXPLORATION OF THE CHEST AND THE DIAGNOSIS OF DISEASES AFFECTING THE RESPIRATORY ORGANS. Second and Revised Edition. In one handsome octavo volume of 595 pages. Extra cloth, \$4 50.

A full and complete treatise on that branch of clinical medicine—*Lond. Med. Times and Gazette*.

It would be superfluous to review, and important to praise, a book so widely and favorably

known; for it is the best treatise we have in the English language on the subject which it illustrates.—*Southern Journal of Med. Science*.

A PRACTICAL TREATISE ON THE DIAGNOSIS, PATHOLOGY, AND TREATMENT OF DISEASES OF THE HEART. Second Edition, thoroughly Revised and Enlarged. In one handsome octavo volume of 550 pages, extra cloth, \$4.

The appearance of a new edition of this standard work calls for no extended notice from the reviewer, and yet a comparison of this with the last issue will show that in many parts it is substantially a new book. Altogether, we are of the opinion that the additions and changes made in this edition of Prof. Flint's work have

materially enhanced its value, and that they will tend still stronger to confirm the estimate which the profession in this country have put upon the book, which was already accepted as a leading authority in all matters pertaining to diseases of the heart.—*N. Y. Medical Journal*, Oct. 1870.

HENRY C. LEA, Philadelphia.